



# TOP-FIVE

## RECOMMENDATIONS on low-value practices

**Better** care. **Better** decision-making. **Better** use of resources.

**The Thoracic Society of Australia and New Zealand (TSANZ)** is the only health peak body representing a range of professions (medical specialists, scientists, researchers, academics, nurses, physiotherapists, students and others) across various disciplines within the respiratory/sleep medicine field in Australia and New Zealand. TSANZ is a health promotion charity.

TSANZ is committed to serving the professional needs of its members by improving knowledge and understanding of lung disease, with the ultimate goals being to prevent respiratory illness through research and health promotion and to improve healthcare for people with respiratory illness.

- 1 Do not perform a D-Dimer in patients at high risk of pulmonary embolism
- 2 Do not use long term systemic corticosteroids for management of chronic obstructive pulmonary disease (COPD)
- 3 Do not initiate maintenance inhalers in minimally symptomatic COPD patients with a low-risk of exacerbation
- 4 Do not routinely follow-up solid pulmonary nodules smaller than 6 mm detected in low-risk patients
- 5 Do not perform a serum ACE for the diagnosis or monitoring of sarcoidosis



1

### **Do not perform a D-Dimer in patients at high risk of pulmonary embolism**

The sequence for diagnostic testing in patients with suspected pulmonary embolism (PE) depends on the clinical circumstances. The certainty of a negative diagnosis for PE via an algorithm including a negative D-dimer result is enhanced when the algorithm follows a multibranch diagnostic pathway. While combining a negative D-dimer result with a low or moderate clinical probability for PE rules out these diagnoses, the use of D-dimer is not helpful in patients with a high probability clinical assessment since a negative D-dimer does not exclude PE in more than 15 percent of such patients.

According to Wells' criteria for deep vein thrombosis, a score of less than two indicates low risk, and above two indicates intermediate/high risk. The high score is  $\geq 4.5$  in the two-tier model and  $> 6$  in the three-tier model (2-6 indicates moderate risk in this model).

2

### **Do not use long term systemic corticosteroids for management of chronic obstructive pulmonary disease (COPD)**

Despite their ongoing and frequent use, there is insufficient evidence regarding efficacy of systemic corticosteroids in the treatment of COPD without exacerbations. Well-known side-effects of this drug group are obesity, respiratory and peripheral muscle weakness, hypertension, psychiatric disorders, diabetes mellitus, osteoporosis, skin thinning and bruising. The burden of cardiovascular disease has a significant impact on all-cause mortality in COPD patients. The combination of limited efficacy and potential toxicity of the drugs, especially in the at-risk patients who tend to be older, less active and have histories of smoking, means that long term use of systemic corticosteroids in COPD is not recommended.

In the cases of the exacerbations of COPD, a 2018 systematic review from Cochrane suggests that a five-day course of oral corticosteroids is likely to be sufficient and that the likelihood that shorter courses of systemic corticosteroids (of around five days) lead to worse outcomes compared with longer courses (10 to 14 days) is low.

3

### **Do not initiate maintenance inhalers in minimally symptomatic COPD patients with a low risk of exacerbation**

Most patients with COPD present with mild disease and few complaints but tend to live a very sedentary lifestyle. The cornerstone of management of mild COPD is smoking cessation, the only proven intervention to relieve symptoms, modify the natural history of disease and lower mortality rates. For asymptomatic or minimally symptomatic patients, quitting smoking is often the only required therapy. Other effective behavioural interventions include maintaining or increasing physical activity, ensuring adequate sleep and a healthy diet and the use of effective stress management strategies.

Inhalers have evidence for only reducing exacerbations and do not modify disease. The use of short- or long-acting bronchodilators on a regular basis is not generally recommended for minimally symptomatic COPD patients with a low risk of exacerbation.



4

**Do not routinely follow-up solid pulmonary nodules smaller than 6 mm detected in low-risk patients**

There is a lack of direct evidence related to cancer probability in small nodules in low-risk patients. The National Lung Screening Trial, the largest randomised study of lung cancer screening in a high-risk population to date, showed that that CT lung screening reduces lung cancer mortality in high-risk patients when the minimum size of a positive pulmonary nodule is set at 4 mm. As more than half of baseline examinations in the study were positive for nodules 4 to 6 mm in size, raising the threshold for a positive result to 6 mm would decrease the baseline positive rate from 27.3 per cent to around 13.4 per cent.

Since the positive predictive value (PPV) of an examination deemed positive for a nodule of 4 to 6 mm stands at 0.5 per cent, increasing the threshold to 6 mm might act to increase the PPV by a factor of 1.8 (7.2 per cent at 6 mm vs 3.8 per cent at 4 mm) without significantly affecting the sensitivity to detect cancer. Given that the average risk of cancer in solid nodules smaller than 6 mm in patients at high risk is less than 1 per cent, it is reasonable to assume an even lower risk in a patient with low clinical risk.

According to the risk categories proposed by the American College of Chest Physicians (ACCP), low risk, which corresponds to an estimated risk of cancer of less than 5 per cent, is associated with young age, less smoking, smaller nodule size, regular margins, and location in an area other than the upper lobe.





5

### Do not perform a serum ACE for the diagnosis or monitoring of sarcoidosis

Sarcoidosis is a multisystemic disease with heterogenous clinical presentations. Diagnosis of sarcoidosis is often challenging because of the lack of reliable biomarkers and other gold standard tests. Unusually high serum angiotensin converting enzyme (ACE) is present in up to 75 percent of untreated patients. However, testing for high serum ACE level has been repeatedly demonstrated to have a poor sensitivity, insufficient specificity (including a false positive rate of around 10 per cent) and inconsistent correlation with disease severity. As such, its general clinical utility is limited.

i

For the list of references supporting these recommendations and further information on the development process, see [evolve.edu.au/recommendations/tsanz](https://evolve.edu.au/recommendations/tsanz)  
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## WHAT IS EVOLVE?

As part of a global movement, Evolve is a flagship initiative led by physicians, specialties and the Royal Australasian College of Physicians (RACP) to drive high-value, high-quality care in Australia and New Zealand.

Evolve aims to reduce low-value care by supporting physicians to:

- be leaders in changing clinical behaviour for better patient care
- make better decisions, and
- make better use of resources.

Evolve works with specialties to identify their 'Top-Five' clinical practices that, in particular circumstances, may be overused, provide little or no benefit, or cause unnecessary harm. Evolve 'Top-Five' recommendations on low-value practices are developed through a rigorous, peer-reviewed

process; led by clinical experts, informed by evidence and guided by consultation.

Evolve enables physicians to:

- safely and responsibly phase out low-value tests, treatments and procedures, where appropriate
- enhance the safety and quality of healthcare
- provide high-value care to patients based on evidence and expertise, and
- influence the best use of health resources, reducing wasted expenditure and the carbon footprint of the healthcare system.

The RACP, through Evolve, is a founding member of Choosing Wisely Australia® and Choosing Wisely New Zealand, with all Evolve 'Top-Five' recommendations part of the Choosing Wisely campaign.

